

## *Recreation*

### *Intensive Recreation Management*

motorized and float boating, waterfowl hunting, and fishing for trophy sized trout. The Idaho department of Fish and Game has provided a boat ramp through a Recreation and Public Purposes Lease and Cooperative Agreement with the BLM. No other facilities are provided.

The Little Wood River area surrounds much of the lower Little Wood River under administration by the BLM. Fishing for trophy size brown and rainbow trout is the principal recreation use. Some motorized camping occurs. No facilities are provided.

The Snake River Rim area lies along the Snake River Canyon near Twin Falls. Use is greatly influenced by the area's proximity to Twin Falls. Heavy ORV use occurs above the canyon rim. Other uses occurring here include horseback riding, target shooting, and sightseeing. Use below the rim includes float boating and kayaking, hiking, fishing, and nature study. Devil's Corral is closed to ORV use and ORV use between the Devil's Corral road and the rim is limited to designated roads and trails. Management direction for the Snake River Rim area is provided by the Snake River Rim Recreation Area Management plan. This is the only area of the three SRMAs covered by a Recreation Area Management Plan (RAMP).

## Visual Quality

Most of the planning area lies within the Columbia Plateau physiographic province, however, a small portion near American Falls lies within the Basin and Range physiographic province. Visual resources are evaluated on their scenic quality within the physiographic province.

Areas of greatest visual concern within the planning area include much of the land immediately adjacent to the Snake River and a strip of land along U.S. Highway 93 near Craters of the Moon National Monument. Land adjacent and to the north side of the Snake River below American Falls is very visible from Interstate 84 and Massacre Rocks State Park, which are south of the river and outside the planning area. Several prominent scars, created by ORVs, exist on south-facing hillsides visible from Massacre Rocks State Park and Interstate 84.

High scenic areas in the planning area are associated with rugged lava fields or the canyon along the Snake River. Other areas of somewhat lower scenic quality include farmland and rolling plains, vegetated with brush and grasses.

Vineyard Creek and Box Canyon possess unique scenic qualities. The combination of exceptional water clarity, abundant riparian vegetation, and isolation among the steep canyon walls of a box canyon or alcove setting are uncommon in the area.

## SOILS

### Soil Origin

Almost all of the soils in the planning area have formed in wind blown, alluvial or lake deposits. Except for some of the older (Upper Pleistocene) buttes that show some weathering of basalt in place, the present soil material is unrelated to the underlying basalt. These materials came from sediments carried in the Little Wood, Big Wood, and Snake rivers and old lake bed deposits.

Soil deposition has occurred during the past 50,000 years. Evidently, soil accumulation has exceeded soil erosion until recent times (10,000 years), since the soils are generally one to several feet or more deep. Some of the more recent lava flows show only slight accumulations in deep pockets and cracks.

### Soil Erosion

When averaged over the entire planning area, the present erosion situation is within acceptable levels. However, both wind and water erosion problems occur in some localized areas. Because of the relatively flat terrain and the coarse texture of the soils, particularly near the Snake and Little Wood rivers, wind erosion is a much greater problem than water erosion. Water erosion problems are confined mainly to the steeper slopes of buttes and breaks into the Snake River.

The major causes of erosion have been livestock grazing and grazing facilities, wildfires, fire suppression activities, ORV use, and agricultural development. Because of these activities, the soils in the area have been subjected to varying degrees of soil loss and accumulations, the net result being a general lessening of soil productivity in some areas and enhancement in others. Sedimentation occurs along the Snake and Little Wood rivers, but most of the area is internally drained. Sediments accumulate in closed basins and playas.

Within the course of written history, erosion rates have increased markedly, due to increased livestock grazing, destruction of perennial vegetation, and increased wildfire due to the deterioration of the range and cheat-grass invasion. At present, the rates of erosion are higher than pre-grazing times, but much lower than the rates experienced during the years prior to 1960. Aerial and ground photographs taken in the vicinity of Wendell and American Falls during the mid 1950s show vast areas with little or no vegetation cover and also show numerous active sand blows. Grazing use was much higher than at present, before being significantly reduced by adjudications in the late 1950s. As a result of these management changes, considerable vegetative cover has been gained and only scattered sand blows remain.

## Soils

### Soil Erosion

The average erosion rate is 4.8 tons/acre/year. Of the 1,178,989 acres in the planning area, only 37,463 acres, or 3 percent, have a severe erosion problem. About a quarter of these areas are associated with management facilities such as dirt roads or watering areas where livestock concentrations occur. The rest are scattered areas of erosion, active sand dunes, and water erosion areas. The occurrence of some of the sand blows varies in different years depending on the size and location of wildfires. Another 15 percent of the area has a moderate erosion problem. The remaining 82 percent of the planning area has erosion levels well within tolerance levels. The problem areas occur within the severe erosion potential areas shown on Map 14.

Tolerance levels (T-levels) for the planning area average 2 to 3 tons/acre/year, but present soil erosion rates of 4.8 tons/acre/year are considered acceptable. The erosion rate does not indicate a loss of 4.8 tons/acre/year, but a movement of this amount of soil. Observations made during the soils survey conducted from 1980 to 1983 (see Appendix I) support this conclusion. Soil examinations within and near areas of severe wind erosion potential, shown on Map 14, reveal a layer of sand on top of a more developed soil profile. This sand layer is very susceptible to movement by wind when vegetation is removed as in a wildfire. Although some of the sand may be lost, most is redeposited in adjacent areas with vegetation cover. The moving sand layer skews the present erosion rate upward.

### Soil Potentials

#### Potential

Most of the public lands in the planning area are considered marginal for agricultural development (see Maps 12 and 14). With the exception of map unit 18, most of the planning area is suited to ORV use and has a medium potential for livestock grazing. Map units 14 and 18 are considered unsuitable for agricultural development. However, a few areas in map unit 14 may have marginal potential. This unit is limited because of shallowness to rock.

Map units 2, 3, 4, 12, and 15 are considered suitable for development. However, these map units are mainly found on private cropland with only small acreages of undeveloped public land.

Map units 10, 13, 16, and 17 are considered marginal for development, but there are some flatter areas well suited to agricultural development.

The remaining map units are considered marginal for development. Soil problems such as droughtiness or depth to rock, erosion hazard either because of water erosion on steep slopes or wind erosion on sandy soils, and/or too much exposed lava limit the suitability of these soils for agriculture.

The agricultural suitability categories shown on Map 12 are based on the percentage of class II and III soils in each soil association as follows:

Suitable - greater than 50 percent class II and III.

Marginal - 20 to 50 percent class II and III.

Unsuitable - less than 20 percent class II and III.

#### Erosion Potential and Soil Productivity

The map units having high erosion potential (see Map 14) would be expected to have serious erosion problems under cultivation, unless careful management and conservation practices were used. Adjacent to and downwind from agricultural lands, sand dunes have formed and advanced across public lands reducing soil productivity. This has resulted from the abrasive effect of soil blowing and the smothering effect of deposited soil. Some of these dunes have stabilized; others are still active. Irrigation, in some areas with increased runoff and erosion, has led to a decrease in soil productivity by smothering the existing vegetation on public lands.

Surface disturbance, compaction, and loss of vegetative cover are the major causes of soil erosion in the planning area. The potential erosion from ORV use and livestock grazing can be quite high, especially on the steeper slopes and sandy soils in the planning area. These activities have caused some serious erosion problems in areas having high erosion potential.

Wildfires are a major cause of erosion in the planning area. This is a result of the damaging effects of the fire itself and the surface disturbance caused by suppression activities.

### MINERALS AND ENERGY

#### Leasable Minerals

##### Oil and Gas

The Shoshone District has authority over oil and gas rights beneath approximately 1,180,000 acres in the planning area. A total of 24,000 acres

*Minerals and Energy*  
*Leasable Minerals*

are currently under oil and gas lease. The planning area is considered to have some possibility for oil and gas production. However, no activity has taken place on the leases.

**Geothermal**

There are no geothermal leases in the planning area, however, a large area east of Carey, encompassing the Wapi and Craters lava flows, is considered to have some possibility for geothermal resources. To date, no geothermal resource development has occurred and exploration by major energy companies has proven unsatisfactory.

**Locatable Minerals**

The Snake River gold placers have been mined since the early 1860s. During the 1870s, flour gold was recovered in extensive operations along most of the river, which forms the southern boundary of the Monument Planning Area. This period saw a multitude of mining camps established with thousands of men winning gold from gravel bars. It has been reported by reliable sources that the highest gold values were found in the deposits in the vicinity of Rupert, American Falls, and south of Minidoka. Millions of yards of gravel were sluiced with an average value of \$.20/cubic yard (the equivalent of \$5.00/cubic yard with gold at \$500/ounce).

Today, the Snake River gold placers are largely operated on a recreational basis, however, a medium-sized placer mining operation exists on Bonanza Bar, southwest of American Falls. Other organizations are in the process of testing for mineable deposits in the area. The financial outcome of these ventures could greatly affect management of lands open to mineral entry which lie adjacent to the Snake River, as well as those lands containing ancient channels of the river. Mining of the Snake River gold has been recently proven to be commercially feasible by a gravel mining company currently operating at Grandview, Idaho.

Map 15 outlines a mining zone for Snake River gold. Lands lying within this zone are considered mineral in character.

The extraction of Snake River placer gold is a minor recreation activity at this time, but could be promoted into a major recreational use of accessible lands adjacent to the river.

Veneer-type lava is present in the planning area. The possibility exists that some deposits of this material could qualify as a locatable mineral.

### Saleable Minerals

Saleable minerals in the planning area include common variety stone and various types of gravels, sand, and common borrow. Approximately 60 rights-of-way and free use permits exist in the planning area, as well as 10 community pits. A constant demand exists from both the public and various highway departments for additional materials. Map 15 shows the location of mineral material sites and possible mineral material deposits. Mineral materials in the area, especially gravel resources, are only available in small deposits and are therefore critical to many users.

## ECONOMIC CONDITIONS

This RMP covers all or parts of seven Idaho Counties (Blaine, Butte, Gooding, Jerome, Lincoln, Minidoka, and Power). For purposes of this economic analysis, Blaine, Butte, Gooding, and Power counties have been excluded from the study area. Blaine County was excluded because the portions of the county within the planning area are largely lava flow and because the northern (Sun Valley) part of the county distorts the data for the southern part of the county. Butte, Gooding, and Power counties were excluded because of their limited involvement in terms of public land within the planning area.

### Income

Total personal income in the study area was \$219.7 million in 1980 (Bureau of Economic Analysis [BEA] 1982). This amounts to a 6 percent increase since 1975 after taking into account the effects of inflation (Council of Economic Advisors 1982). This is a much slower rate of growth than the State's increase of 12 percent. The leading industries are agriculture (39 percent), manufacturing (21 percent), government (11 percent), services (7 percent), and retail trade (6 percent).

### Employment

Total employment was 17,236 in 1980 (BEA 1982). This represents a 12 percent increase since 1975. This is slightly slower growth than the State experienced during this time (18 percent). The leading employers in the study area are agriculture (27 percent), manufacturing (19 percent), government (14 percent), retail trade (8 percent), and services (6 percent).

*Economic Conditions*  
*Multipliers*

Multipliers

When a change occurs in a local economy, the initial effect spreads to other sectors of the economy (the multiplier effect). The total impact of any change is equal to the initial change plus the secondary change (as estimated by the multiplier). The multipliers used in the RMP area are those reported by the U.S. Water Resources Council in 1977. The multipliers are the Bureau of Economic Analysis area 152, which includes most of southcentral and south-east Idaho. The multipliers are for gross output which must be converted to earnings for comparative purposes. Multipliers and earnings/output ratios of interest are:

Industry	Gross Output Multiplier	Earnings to Gross Output Ratio
Vegetables, Sugar, Crops	2.496	0.3850
Meat Animals, Livestock	2.547	0.2447
Wholesale and Retail Trade	2.208	0.3969
Construction	1.948	0.2947
Services	2.217	0.3848

Source: U.S. Water Resources Council, 1977

Construction Industry

The construction industry would feel the impact of changes in spending levels for the installation of range improvements, as well as construction and maintenance of other types of facilities to accomplish the objectives of the RMP.

Recreation Industry

Changes in recreation use levels primarily impact the retail trade and services sectors of the local economy. Based on expenditures data for hunting and fishing in Idaho (USFWS 1980), it has been determined that the majority of any such impacts would be received by the retail trade industry (95-99 percent). For this reason, recreation-related economic impacts discussed in Chapter 4 will compare those impacts to the retail trade sector of the local economy.

Crop Agriculture Industry

The 1980 planning area (Jerome, Lincoln, Minidoka counties) farm income resulting from the raising of crops is estimated at \$40.9 million. This is based on the assumption that crop income is the same proportion of farm income as crop receipts are of total farm receipts. In 1980 crop receipts totalled 48.4 percent of total farm receipts (Bureau of Economic Analysis 1982).

In 1980 Idaho ranked in the top ten states in the production of 18 crops. Included were potatoes (#1), barley (#1), dry edible beans (#3), alfalfa hay (#6), all wheat (#10), and all hay (#10). The planning area is a significant producer of all of these crops as can be seen in the following table.

Crop	Percent of Statewide Production
Potatoes <u>1/</u>	11.4 percent
Barley <u>2/</u>	7.7 percent
Dry Edible Beans <u>3/</u>	18.3 percent
Sugar Beets <u>2/</u>	28.3 percent
All Hay <u>3/</u>	11.6 percent
All Wheat <u>2/</u>	9.6 percent

1/ 1982 Idaho Agricultural Statistics

2/ 1981 Idaho Agricultural Statistics

3/ 1980 Idaho Agricultural Statistics

The number of jobs generated in the planning area due to crop agriculture (based on BEA farm income and employment data) is estimated at 2,250.

In order to make impact comparisons, a typical agricultural entry (Desert Land or Carey Act) was analyzed to determine potential revenues associated with these land disposals. The entry analyzed was assumed to contain the following major characteristics:

Location: Minidoka County

Crops: Alfalfa, Barley, Potatoes

Farmable Acres: 210

Soil Types: 5 percent class II, 15 percent class III, 80 percent class IV

This analysis estimated net revenues of \$1,800 per entry annually, based on total revenues of \$109,300 and total costs of \$107,500. Included in these costs are labor costs of \$4,931 per entry. This makes the total income per entry \$6,731 (labor plus net revenue). The crop enterprise budgets, summary table, and a listing of all assumptions made can be found in Appendix J.



Livestock Industry

To determine what impact the various alternatives would have on rancher income, ranch budgets were prepared. Budgets for four groups (three cattle, one sheep) were developed. The basic characteristics of each ranch budget group are shown in Table 3-1. The results of the budgeting are in Table 3-2. The full budgets, along with a complete description of the process used to develop the budgets, can be found in the Analysis of the Management Situation for the Monument RMP, on file in the Shoshone District Office.

Total returns above cash costs for all planning area permittees would be \$1,333,300.

TABLE 3-1

BASIC RANCH GROUP CHARACTERISTICS

Group	Herd Size	Class	Number of Permittees	Five-Year Average Use
1	0 - 100	Cattle	63	11,622
2	101 - 250	Cattle	46	22,363
3	251 or more	Cattle	29	34,231
4	All	Sheep	27	29,676

TABLE 3-2

RANCH BUDGET SUMMARY

	Group 1	Group 2	Group 3	Group 4
Total Revenue	\$ 19,829	\$ 51,595	\$169,614	\$290,241
Total Costs	\$ 48,664	\$ 95,866	\$231,551	\$401,525
Cash Costs	17,664	49,016	158,051	262,725
Other Costs	31,000	46,850	73,500	138,800
Returns				
Above Cash Costs	\$ 2,165	\$ 2,579	\$ 11,563	\$ 27,516
Above Cash Costs and Family Labor	-7,835	-9,421	-2,937	12,516
To Total Investment	-19,835	-23,421	-20,437	-1,984
To Land	-22,235	-28,671	-34,237	-34,584

Permit Values

As early as 1925, it was recognized that the annual value of the Federal grazing privilege was being capitalized into rancher property. "It is argued that long use of the range in connection with the early settlement of agricultural lands has resulted in capitalizing the values of public pasturage as part of the value of the ranch..." (USDA 1925).

A report published by the Utah State University Experiment Station stated, "There was nothing illegal or unethical in the fact that grazing permits took on value; ranchers just reacted to an economic situation that was created by government policy. Permit values rose because ranchers who have grazing permits were capturing economic rents in the form of low cost grazing, i.e., the grazing fee and recognized non-fee costs did not equal the value of the grazing to ranches. Thus, the authorization to use the federal lands and the associated economic rents were capitalized into rancher-owned assets. This value could show up either as a permit value or as an increased value of the commensurate property." (Nielson and Workman 1971)

BLM's position on permit values is based on very explicit language in Section 3 of the Taylor Grazing Act of 1934, which states "...so far as consistent with the purposes and provisions of this Act, grazing privileges recognized and acknowledged shall be adequately safeguarded, but the creation of a grazing district or the issuance of a permit pursuant to the provisions of this Act shall not create any right, title, interest, or state on or to the lands." Thus, any capitalized value associated with grazing permits has no legal basis, and, as a result a rancher has no compensation for loss of this value.

Magazine articles and research results have often been in conflict on the subject of permit values. Nevada rancher, Dean Rhoads, in an article in the New West Magazine stated that "...the forage right for a single cow on the public range now sells for anywhere from \$1,500 to \$3,000 in the Elko area." (Boly 1980) A survey done in New Mexico by ranch appraisers and credit officers placed the value of Forest Service permits at between \$944 and \$1,163 per animal unit, depending on the area in New Mexico. Bureau of Land Management values varied from \$667 to \$888 (Fowler and Gray 1980). On the other hand, a study in eastern Oregon found "...the inclusion of public grazing privileges were found to have no significant impact on the level of private grazing land sale prices" (Winter and Whittaker 1979).

Any impact to capital value of grazing permits is only realized at time of ranch sale. Also, the Bureau is currently studying the grazing fee formula. If this study results in setting grazing fees such that the fee plus non-fee costs equal the value of the grazing to the rancher, then all capital value will be eliminated.